

Title (en)

APPARATUS FOR ENDOOTHERMIC PROCESS WITH IMPROVED TUBES ARRANGEMENT

Title (de)

VORRICHTUNG FÜR ENDOOTHERMISCHES VERFAHREN MIT VERBESSERTER ROHRANORDNUNG

Title (fr)

APPAREIL POUR PROCÉDÉ ENDOOTHERMIQUE AVEC AGENCEMENT DE TUBES AMÉLIORÉ

Publication

EP 3279561 B1 20190626 (EN)

Application

EP 16306000 A 20160802

Priority

EP 16306000 A 20160802

Abstract (en)

[origin: EP3279561A1] A furnace for performing an endothermic process, comprising tubes containing a catalyst for converting a gaseous feed, wherein tubes are positioned in rows inside the furnace, wherein burners are mounted between the tubes and between the tubes and the furnace walls parallel to the tubes rows, and wherein the burners rows and the tubes rows are ended by end walls and are divided into sections with, on each row of tubes, the distance from a wall end tube to the end wall being T2W, the distance between two adjacent inner tubes in a section being T2T, and the distance between two symmetry end tubes of two adjacent sections being T2S, wherein the tubes in the rows are arranged in such a way that the ratios T2T/T2W and T2T/T2S are greater than 0.5 and smaller than 2 thus limiting the differences in the heat transfer to the outer tubes (wall end tubes and symmetry end tubes) with respect to the inner tubes and reducing the temperature difference between outer tubes and inner tubes.

IPC 8 full level

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C01B 2203/1241 (2013.01 - EA EP KR US); **C01B 2203/141** (2013.01 - EA US); **F23C 2900/03002** (2013.01 - EA EP KR US)

Citation (examination)

EP 3182003 A1 20170621 - AIR LIQUIDE [FR]

Cited by

EP3647658A1; WO2020088795A1; EP3838397A1; EP3816513A1; US11813603B2; WO2021083752A1; WO2021121651A1

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ES 2738389 T3 20200122; KR 102334819 B1 20211202; KR 20190034250 A 20190401; MX 2019001034 A 20190620;
MY 195401 A 20230119; PL 3279561 T3 20191129; SA 519401006 B1 20211122; SG 11201900720U A 20190227; US 10745275 B2 20200818;
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